AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of claims in the above-referenced application.

Listing of Claims:

1. (Currently Amended) A method executed on a first data storage device for processing a multipath multihop system call comprising:

determining, in accordance with an opcode, whether a data operation request is a multipath multihop system call, said data operation request including a data structure comprising said opcode as a parameter identifying one of a plurality of types of calls; and

in response to determining that said data operation request is a multipath multihop system call:

determining a communication path between said first data storage device and a target data storage device;

determining a first communication connection between said first data storage device and a second data storage device included in the communication path;

modifying said data operation request by removing a first portion of data, wherein said first portion is not removed for at least one other type of data operation request;

and

sending said data operation request to said second data storage device.

2. (original) The method of Claim 1, wherein said first communication connection is one of: a local area network, a storage area network, and a data storage connection.

3. (Previously presented) The method of Claim 1, wherein said first communication connection is a data storage connection that is a remote data storage facility connection connecting said first data storage device and said second data storage device.

4. (original) The method of Claim 1, further comprising:

predetermining a portion of said communication path from said first data storage device to said target data storage device.

5. (original) The method of Claim 4, wherein said predetermining a portion of said communication path further comprises:

determining a first intermediate data storage device from a plurality of data storage devices connected to said first data storage device.

6. (original) The method of Claim 5, wherein said predetermining a portion of said communication path further comprises:

determining a first corresponding communication connection between said first data storage device and said first intermediate data storage device, wherein said first corresponding communication connection is one of a: local area network, device storage connection, and storage area network.

7. (original) The method of Claim 6, further comprising:

dynamically determining an other portion of said communication path from said first data storage device to said target data storage device.

8. (original) The method of Claim 7, wherein said dynamically determining said other portion further comprises:

determining a second intermediate data storage device from a plurality of data storage devices connected to said first data storage device.

9. (original) The method of Claim 8, wherein said dynamically determining said other portion further comprises:

determining a second corresponding communication connection between said first data storage device and said second intermediate data storage device, wherein said second communication connection is one of a: local area network, device storage connection, and storage area network.

10. (original) The method of Claim 1, further comprising:

dynamically determining a portion of said communication path from said first data storage device to said target data storage device.

11. (original) The method of Claim 10, wherein said dynamically determining said portion further comprises:

determining an intermediate data storage device from a plurality of data storage devices connected to said first data storage device.

12. (original) The method of Claim 11, wherein said dynamically determining said portion further comprises:

determining a corresponding communication connection between said first data storage device and said intermediate data storage device, wherein said communication connection is one of a: local area network, device storage connection, and storage area network.

13. (Previously presented) The method of Claim 1, further comprising:

including information about said communication path in said data structure when said data operation request is a multipath multihop system call.

14. (original) The method of Claim 13, wherein said information includes data about a portion of said communication path that is predetermined.

15. (original) The method of Claim 13, wherein said information includes data about a portion of said communication path that is dynamically determined.

16. (original) The method of Claim 1, wherein said communication path is a first communication path, and the method further comprises:

determining at least one additional communication path between said first data storage device and a target data storage device.

17. (original) The method of Claim 16, further comprising:

determining, using said at least one additional communication path, an alternate communication path upon the occurrence of a data transmission problem.

18. (original) The method of Claim 16, further comprising:

sending said data operation request on said first communication path and said at least one additional communication path such that said data operation request is directed to said target data storage device on a plurality of communication paths.

19. (original) The method of Claim 18, further comprising:

dynamically determining a quantity corresponding to a number of additional communication paths used in directing said data operation request to said target data storage device.

20. (original) The method of Claim 18, wherein a quantity corresponding to a number of additional communication paths used is a modifiable parameter.

21. (original) The method of Claim 18, wherein a quantity corresponding to a number of additional communication paths used is determined in accordance with network traffic.

22. (Currently Amended) A method for processing a data operation request from a host computer system to a target data storage device comprising:

determining a communication path from said host computer system to said target data storage device;

sending a data operation request to a first data storage device connected to said host computer system by one of a local area network and a storage area network;

determining, at said first data storage system in accordance with an opcode, whether said data operation request is a multipath multihop system call, wherein said data operation request includes a data structure comprising said opcode as a parameter identifying one of a plurality of types of calls; and

in response to determining that said data operation request is a multipath multihop system call, modifying said data operation request by removing a first portion of data, wherein said first portion is not removed for at least one other type of data operation request, and forwarding said data operation request to an intermediate data storage device included in said communication path over a communication connection between said first data storage device and said intermediate data storage device.

23. (original) The method of Claim 22, wherein said communication connection is one of a storage area network, a local area network, and a device storage connection.

24. (Previously presented) The method of Claim 22, further comprising:

dynamically determining a portion of said communication path; and

including data describing said portion in said data structure.

25. (Previously presented) The method of Claim 22, further comprising:

predetermining a portion of said communication path; and

including data describing said portion in said data structure.

26. (original) The method of Claim 22, wherein said communication path is a first communication path, and the method further comprises:

determining at least one additional communication path from said host computer system to said target data storage device.

27. (original) The method of Claim 26, further comprising:

using said at least one additional communication path as an alternate communication path upon the occurrence of a transmission problem using said first communication path.

28. (Currently Amended) A computer system comprising:

a host initiating a data operation request;

at least three data storage devices, said data operation request being directed to at least one of said at least three storage devices;

a communication connection between said host and each of said at least three data storage devices, each of said communication connections including at least one of a storage area network and a local area network;

wherein each of said at least three data storage devices includes machine executable code for:

receiving and interpreting said data operation request over said communication connection that is one of a local area network and a storage area network;

determining, in accordance with an opcode, if said data operation request is a multipath multihop system call, said data operation request including a data structure with said opcode as a parameter identifying one of a plurality of types of calls; and

[[forwarding,]]in response to determining that said data operation is a multipath multihop system call, modifying said data operation request by removing a first portion of data, wherein said first portion is not removed for at least one other type of data operation request, and forwarding [[a second portion of said data associated with]] said data operation request to an other of said at least three data storage devices.

29. (Canceled)

30. (original) The computer system of Claim 28, wherein a first data storage device is connected to a second data storage device, said second data storage device being connected to a third data storage device, said first data storage device being connected to said host, said data operation request being forwarded to said first data storage device and being a multipath multihop system call directing said third data storage device to respond to said data operation request.

31. (original) The computer system of Claim 30, wherein said host further comprises machine executable code that determines a first communication path including said first, second and third data storage devices, determines a second communication path using one of a storage area network and a local area network between said host and said third data storage device, sends said data operation request to said third data storage device through said first communication path and said second communication path.

32. (original) The computer system of Claim 31, wherein said first and second communication paths are alternate communication paths.

33. (original) The computer system of Claim 31, wherein said first and second communication paths are simultaneous transmission paths.

34. (Currently Amended) A data storage device comprising:

machine executable code for determining, in accordance with an opcode, whether a data operation request is a multipath multihop system call, said data operation request including a data structure comprising said opcode as a parameter identifying one of a plurality of types of calls; and

machine executable code that, in response to determining that said data operation request is a multipath multihop system call:

determines a communication path between said data storage device and a target data storage device;

determines a first communication connection between said data storage device and a second data storage device included in said communication path;

modifies said data operation request by removing a first portion of data, wherein said first portion of data is not removed for at least one other type of data operation request; and

sends said data operation request to said second data storage device.

35. (original) The data storage device of Claim 34, wherein said first communication connection is one of: a local area network, a storage area network, and a data storage connection.

36. (original) The data storage device of Claim 34 further comprising:

machine executable code for predetermining a portion of said communication path from said data storage device to said target data storage device.

37. (original) The data storage device of Claim 36, wherein said machine executable code for predetermining said portion further includes machine executable code for:

determining a first intermediate data storage device from a plurality of data storage devices connected to said data storage device; and

determining a first corresponding communication connection between said data storage device and said first intermediate data storage device, wherein said first corresponding communication connection is one of a: local area network, device storage connection, and storage area network.

38. (original) The data storage device of Claim 34, further comprising:

machine executable code for dynamically determining a portion of said communication path from said data storage device to said target data storage device.

39. (original) The data storage device of Claim 38, wherein said machine executable code for dynamically determining said portion further includes machine executable code for:

determining an intermediate data storage device from a plurality of data storage devices connected to said data storage device;

determining a corresponding communication connection between said data storage device and said intermediate data storage device, wherein said communication connection is one of a: local area network, device storage connection and storage area network.

40. (Previously presented) The data storage device of Claim 34, further comprising:

machine executable code for including information about said communication path associated with said multipath multihop system call in said data structure.

41. (original) The data storage device of Claim 40, wherein said information includes data about a portion of said communication path that is predetermined.

42. (original) The data storage device of Claim 40, wherein said information includes data about a portion of said communication path that is dynamically determined.

43. (original) The data storage device of Claim 34, wherein said communication path is a first communication path, and the data storage device further comprises:

machine executable code for determining at least one additional communication path between said data storage device and a target data storage device.

44. (original) The data storage device of Claim 43, further comprising:

machine executable code for determining, using said at least one additional communication path, an alternate communication path upon occurrence of a data transmission problem.

45. (original) The data storage device of Claim 43, further comprising:

machine executable code for sending said data operation request on said first communication path and said at least one additional communication path such that said data operation request is directed to said target data storage device on a plurality of communication paths.

46. (original) The data storage device of Claim 45, further comprising:

machine executable code for dynamically determining a quantity corresponding to a number of additional communication paths used in directing said data operation request to said target data storage device.

47. (original) The data storage device of Claim 45, wherein a quantity corresponding to a number of additional communication paths used is a modifiable parameter.

48. (original) The data storage device of Claim 45, wherein a quantity corresponding to a number of additional communication paths used is determined in accordance with network traffic.

49. (Currently Amended) A computer readable storage medium for use in processing a data operation request from a host computer system to a target data storage device comprising:

machine executable code for determining a communication path from said host computer system to said target data storage device;

machine executable code for sending a data operation request to a first data storage device connected to said host computer system by one of a local area network and a storage area network;

machine executable code for determining, at said first data storage system in accordance with an opcode, whether said data operation request is a multipath multihop system call, wherein said data operation request includes a data structure comprising said opcode as a parameter identifying one of a plurality of types of calls;

machine executable code for modifying said data operation request by removing a first portion of data in response to determining that said data operation request is a multipath multihop system call, wherein said first portion is not removed for at least one other type of data operation request; and

machine executable code for forwarding said data operation request to an intermediate data storage device included in said communication path over a communication connection between said first data storage device and said intermediate data storage device in response to determining that said data operation request is a multipath multihop system call.

50. (original) The computer readable storage medium of Claim 49, wherein said communication connection is one of a storage area network, a local area network, and a device storage connection.

51. (Previously presented) The computer readable storage medium of Claim 49, further comprising:

machine executable code for dynamically determining a portion of said communication path; and

machine executable code for including data describing said portion in said data structure.

52. (Previously presented) The computer readable storage medium of Claim 49, further comprising:

machine executable code for predetermining a portion of said communication path; and

machine executable code for including data describing said portion in said data structure.

53. (Currently Amended) The computer readable storage medium of Claim 49, wherein said communication path is a first communication path, and the computer readable storage medium further comprises:

machine executable code for determining at least one additional communication path from said host computer system to said target data storage device[[,]] .

54. (original) The computer readable storage medium of Claim 53, further comprising:

machine executable code for using said at least one additional communication path as an alternate communication path upon the occurrence of a transmission problem using said first communication path.

55. (Currently Amended) A method executed by a data storage entity for routing a communication, the method comprising:

determining a type associated with the communication, said communication comprising a data structure including a first parameter identifying said type from one of a plurality of types;

determining, at said data storage entity in accordance with said type, whether said communication is a multipath multihop system call to be performed at a target not directly connected to said data storage entity; and

in response to determining that said communication is a multipath multihop system call:

determining a communication connection between the data storage entity and a connecting data storage entity;

modifying said communication by removing a first portion of data, wherein said first portion is not removed for at least one other type of communication; and

sending said communication to said connecting data storage entity using said communication connection.

56. (original) The method of Claim 55, wherein said data storage entity is a data storage device.

57. (Canceled)

58. (Previously presented) The method of Claim 55, wherein said plurality of types includes at least one of: data, a system call, other type of remote system call.

59. (original) The method of Claim 55, wherein said communication connection is one of: a local area network, a storage area network, a data storage connection.

60. (original) The method of Claim 59, wherein said connecting data storage entity is another data storage device.

61. (original) The method of Claim 60, further comprising:

determining a communication path between said data storage entity and an endpoint, wherein said endpoint is another data storage entity and said connecting data storage entity is included in said communication path.

62. (original) The method of Claim 61, further comprising:

determining at least one intermediate data storage device included in said communication path.

63. (original) The method of Claim 62, further comprising:

dynamically determining a portion of said communication path.

64. (original) The method of Claim 63, further comprising:

predetermining a portion of said communication path.

65. (original) The method of Claim 64, further comprising:

determining an alternate communication connection;

transmitting said communication using said alternate communication connection upon the occurrence of a data transmission problem.

66. (Currently Amended) A computer program product for routing a communication by a data storage entity comprising:

machine executable code for determining a type associated with the communication, said communication comprising a data structure including a first parameter identifying said type from one of a plurality of types;

machine executable code that determines, at said data storage entity in accordance with said type, whether said communication is a multipath multihop system call to be performed at a target not directly connected to said data storage entity; and

machine executable code that, in response to determining that said communication is a multipath multihop system call:

determines a communication connection between the data storage entity and a connecting data storage entity;

modifies said communication by removing a first portion of data, wherein said first portion is not removed for at least one other type of communication; and

sends said communication to said connecting data storage entity using said communication connection.

67. (original) The computer program product of Claim 66, wherein said data storage entity is a data storage device.

68. (Canceled)

69. (Previously presented) The computer program product of Claim 66, wherein said plurality of types includes at least one of: data, a system call, other type of remote system call.

70. (original) The computer program product of Claim 66, wherein said communication connection is one of: a local area network, a storage area network, a data storage connection.

71. (original) The computer program product of Claim 70, wherein said connecting data storage entity is another data storage device.

72. (original) The computer program product of Claim 71, further comprising:

machine executable code for determining a communication path between said data storage entity and an endpoint, wherein said endpoint is another data storage entity and said connecting data storage entity is included in said communication path.

73. (original) The computer program product of Claim 72, further comprising:

machine executable code for determining at least one intermediate data storage device included in said communication path.

74. (original) The computer program product of Claim 73, further comprising:

machine executable code for dynamically determining a portion of said communication path.

75. (original) The computer program product of Claim 74, further comprising:

machine executable code for predetermining a portion of said communication path.

76. (original) The computer program product of Claim 75, further comprising:

machine executable code for determining an alternate communication connection;

machine executable code for transmitting said communication using said alternate communication connection upon the occurrence of a data transmission problem.

77. (Cancelled)

78. (Currently Amended) The method of Claim [[77]] 1, wherein said plurality of types includes at least one of: system call indicating that said data request is to be performed by said first data storage device, or a remote system call indicating that said data request is to be performed by a data storage device directly connected to said first data storage device.

79. (Previously presented) The method of Claim 1, wherein said data structure includes a tag parameter identifying an issuer of said data operation request.

80. (Previously presented) The method of Claim 1, wherein said data structure includes at least one of a: flag representing an indicator associated with said data operation request, and a control parameter indicating whether a response is to be returned.

81. (Previously presented) The method of Claim 80, wherein said flag indicates at least one of: a type of error checking to be performed, and a data format type.

82. (Previously presented) The method of Claim 80, wherein said flag includes a control parameter indicating that a response to said call is to be returned, and the method further comprising:

returning information in response to said call, wherein said information returned comprises a data structure including at least one of: a return error code, data payload returned from said target in response to said call, and an inline tag specifying a sender of said call.

83. (Previously presented) The method of Claim 22, wherein said data structure includes at least one additional parameter specifying a number of communication paths wherein said data operation request is transmitting on all of said number of communication paths, or return path information.

84. (Currently Amended) The method of Claim 22, wherein~~, in response to determining that said data operation request is a multipath multihop system call, the method further comprising:~~

~~removing a portion of data associated with said data operation request, said portion including~~ said first portion removed includes said opcode.

85. (Previously presented) The computer system of Claim 28, wherein said plurality of types includes at least one of: system call indicating that said data request is to be performed by said each data storage device, or a remote system call indicating that said data request is to be performed by a data storage device directly connected to said each data storage device.

86. (Previously presented) The computer system of Claim 28, wherein said data structure includes at least one additional parameter identifying an issuer of said data operation request, or return path information.

87. (Previously presented) The data storage device of Claim 34, wherein said plurality of types includes at least one of: system call indicating that said data request is to be performed by said data storage device, or a remote system call indicating that said data request is to be performed by another data storage device directly connected to said data storage device.

88. (Previously presented) The data storage device of Claim 34, wherein said data structure includes at least one additional parameter identifying an issuer of said data operation request, or return path information.

89. (Previously presented) The computer readable storage medium of Claim 49, wherein said data structure includes at least one additional parameter identifying an issuer of said data operation request, or return path information.

90. (Previously presented) The method of Claim 55, wherein said data structure includes at least one additional parameter identifying an issuer of said data operation request, or return path information.

91. (Previously presented) The computer program product of Claim 66, wherein said data structure includes at least one additional parameter identifying an issuer of said data operation request, or return path information.

92. (Previously presented) The method of Claim 55, wherein said data structure includes a second parameter identifying a plurality of communication paths when said type identifies a multipath multihop system call,and, in response to determining that said communication is a multipath multihop system call, said determining a communication connection between the data storage entity and a connecting data storage entity determines said communication connection in accordance with said plurality of communication paths included as said second parameter.

93. (Previously presented) The computer program product of Claim 66, wherein said data structure includes a second parameter identifying a plurality of communication paths when said type identifies a multipath multihop system call, and, in response to determining that said communication is a multipath multihop system call, said determining a communication connection between the data storage entity and a connecting data storage entity determines said communication connection in accordance with said plurality of communication paths included as said second parameter.